GOVERNMENT OF INDIA
NON-CONVENTIONAL ENERGY SOURCES
LOK SABHA

UNSTARRED QUESTION NO:1602
ANSWERED ON:25.07.2002
POTENTIAL OF NCES
CHANDRAKANT BHAURAO KHAIRE

Will the Minister of NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) the achievements of Non-Conventional and renewable energy sources and potential for their growth; and

(b) the details of distribution of bio-gas plants, improved stoves, small scale hydro power projects, biomass electricity projects, solar water heaters, garbage energy projects during the last three years, State-wise?

Answer

MINISTER OF STATE FOR NON-CONVENTIONAL ENERGY SOURCES (SHRI M. KANNAPPAN)

(a): The Ministry of Non-Conventional Energy Sources is implementing various programmes based on renewable energy sources such as solar, wind, biomass, small hydro and urban and industrial wastes throughout the country for tapping non-conventional energy sources. The details of estimated broad potential and cumulative achievements under these programmes, as on 31-3-2002, are given in Annexure-I.

(b): The State-wise details of various non-conventional energy systems / devices installed during the last three years, i.e., 1999-2000, 2000-2001 and 2001-2002, are given in the Annexure-II. In addition, 1,80,000 square metres of collector area was installed for solar water heating systems during the three years.

Annexure-I referred to in reply to Part (a) of Lok Sabha Unstarred Question No. 1602 for 25-7-2002 regarding Potential of NCES

Renewable Energy Potential and achievements under various programmes as on 31st March 2002

Source/System	Approximate Potential	Achievement (as on 31-03-2002)
A. Power from Renewables		
1. Solar Photovoltaic Power	-	1.99 MW
2. Wind Power	45,000 MW	1628.2 MW
3. Small Hydro Power (up to 25 MW)	15,000 MW	1437.47 MW
4. Biomass Cogeneration Power	19,500 MW @	381.3 MW
5. Biomass Gasifier	-	51.3 MW
6. Energy Recovery from wastes	1,700 MW	21.98 MW
Power from Renewables (total)	81,200 MW	3522.24 MW
B. Decentralized Energy Systems		
7. Family-size Biogas plants	120 lakh	33.68 lakhs
8. CBP/IBP/NBP Plants	-	3901 Nos.

9. Improved Chulha 12 crores 3.52 crores
10 Solar Photovoltaic Systems 20 MW/sq. km.

i. Solar Street Lighting Systems - 41776 Nos.
ii. Home Lighting Systems - 206732 Nos.
iii. Solar Lanterns - 427687 Nos.
iv. Solar Photovoltaic Power Plants - 1188 kWp

11. Solar Water Heating Systems 140 million sq. m 0.60 million sq.m
Collector area Collector area
12. Solar Cooking System

i. Box -type Solar Cookers - 5,18,000 Nos.
ii. Concentrating-type
Community Cookers - 175 Nos.

13. Solar Photovoltaic Pumps - 4500 Nos.
14. Wind Pumps - 793 Nos.
15. Hybrid Systems - 127.5 KW
C. Other Programmes
16. Aditya Solar Shops - 29 Nos.
17. Battery Operated Vehicles - 247 Nos.
18. Energy Parks - 278 Nos.
19. IREP Blocks - 860 Nos.

Sq. km. = Square Kilometer;
Sq. m. = Square meter;
MW = Mega-watt
KW = Kilo watt;
kWp = Kilo watt peak
IREP = Integrated Rural Energy Programme;
CBP/IBP/NBP = Community/Institutional/Night-soil based Biogas Plants
@ = including Biomass Gasifier